

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A strain of *Bifidobacterium bifidum* having accession no. NCIMB 41171 capable of producing a galactosidase enzyme activity that converts lactose to a galactooligosaccharide mixture comprising disaccharide Gal (α 1-6)-Gal, at least one trisaccharide selected from the group consisting of Gal (β 1-6)-Gal(β 1-4)-Glc and Gal (β 1-3)-Gal (β 1-4)-Glc, tetrasaccharide Gal (β 1-6)-Gal(β 1-6)-Gal(β 1-4)-Glc and pentasaccharide Gal (β 1-6)-Gal(β 1-6)-Gal (β 1-6)-Gal(β 1-4)-Glc.
2. (Cancelled)
3. (Cancelled)
4. (Previously Presented) The strain according to Claim 1, wherein the galactooligosaccharide mixture comprises from 20 to 35% w/v of the disaccharide, from 20 to 35% w/v of the trisaccharide, from 15 to 25% w/v of the tetrasaccharide and from 10 to 20% w/v of the pentasaccharide.
5. (Cancelled)
6. (Currently Amended) A galactooligosaccharide composition for promoting specific growth of bifidobacteria comprising, as effective constituents, a galactooligosaccharide mixture comprising disaccharide Gal(α 1-6)-Gal, at least one trisaccharide selected from the group consisting of Gal (β 1-6)-Gal(β 1-4)-Glc and Gal (β 1-3)-Gal (β 1-4)-Glc, tetrasaccharide Gal (β 1-6)-Gal(β 1-6)-Gal(β 1-4)-Glc and pentasaccharide Gal (β 1-6)-Gal(β 1-6)-Gal (β 1-6)-Gal(β 1-4)-Glc.

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7. (Cancelled)
8. (Cancelled)
9. (Previously presented) The galactooligosaccharide composition according to Claim 6, comprising from 20 to 35% w/v of the disaccharide, from 20-35% w/v of the trisaccharide, from 15-25% w/v of the tetrasaccharide and from 10-20% w/v of the pentasaccharide.
10. (Previously presented) A composition for improving gut health comprising the galactooligosaccharide composition of claim 6 and a culture of a strain of *Bifidobacterium bifidum* capable of producing a galactosidase enzyme activity that converts lactose to the galactooligosaccharide mixture.
11. (Previously presented) A method of treatment of a human or animal by therapy, comprising:

administering a galactooligosaccharide composition of claim 6.
12. (Previously presented) A method for preventing adhesion of pathogens or toxins produced by pathogens to the gut wall, comprising:

administering an effective amount of the galactooligosaccharide composition of claim 6 .
13. (Currently amended) A method for re-establishing a normal gut flora following antibiotic treatment or surgery, comprising:

administering an effective ~~amount~~ amount of the galactooligosaccharide composition of claim 6.
14. (Cancelled)
15. (Cancelled)

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16. (Previously presented) A product for improving gut health comprising the galactooligosaccharide composition of claim 6.

17. (Currently Amended) The product for improving gut health of Claim 16, further comprising a food or beverage selected from the group consisting of dairy products, beverages, infant foods, cereals, bread, biscuits, confectionary, cakes, food supplements, dietary supplements, animal feeds, poultry feeds, and combinations thereof, or any other food or beverage.

18. (Previously presented) A method for the manufacture of a substance for promoting the growth of bifidobacteria comprising:

treating lactose or a lactose-containing material with cells from the strain of *Bifidobacterium bifidum* of Claim 1; and

removing the cells from the treated lactose or lactose-containing material.

19. (Previously presented) The method according to Claim 18, wherein the lactose or the lactose-containing material is selected from the group consisting of commercially-available lactose, whole milk, semi-skimmed milk, skimmed milk, whey and fat-filled milk.

20. (Original) The method according to Claim 19, wherein the milk is obtained from cattle, buffalos, sheep or goats.

21. (Previously presented) The method according to Claim 18, wherein following removal of the *Bifidobacterium bifidum* cells, the substance is spray-dried to produce a powder.

22. (Previously presented) The method of treatment of claim 11, wherein the galactooligosaccharide composition is combined with a culture of strain NCIMB 41171 from *Bifidobacterium bifidum*.

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23. (Previously presented) The method of claim 12, wherein the galactooligosaccharide composition is combined with a culture of strain NCIMB 41171 from *Bifidobacterium bifidum*.

24. (Previously presented) The method of claim 13, wherein the galactooligosaccharide composition is combined with a culture of strain NCIMB 41171 from *Bifidobacterium bifidum*.

25. (Previously presented) The product of claim 16, further comprising a culture of strain NCIMB 41171 from *Bifidobacterium bifidum*.

26. (Previously presented) A method for treating inflammatory bowel disease or irritable bowel syndrome, comprising: administering an effective amount of the galactooligosaccharide composition of claim 6.

27. (Previously presented) The method of claim 26, wherein the galactooligosaccharide composition is combined with a culture of strain NCIMB 41171 from *Bifidobacterium bifidum*.